

## Session 1

### Management Issues and Questions: Why Are We Here?



## Age and Size at Maturity - Much Ado about Nothing or Does It Really Matter?



Tim Roth, CRFPO Deputy Project Leader

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Embassy Suites Hotel, Portland, Oregon



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## Day 1. Session 1. Why Are We Here?

- Some initial thoughts & considerations to help set the stage for the Workshop.



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## Recent General Observations

- Very high jack & mini-jack returns, especially for some spring & fall Chinook hatchery programs.
- Break down of historical sibling relationships for run size prediction purposes in some species & stocks (spring Chinook)
- Generally later timed spring Chinook runs crossing Bonneville Dam. Could this be age related? (Younger fish migrate later.)
- Continued low productivity of naturally spawning populations where hatchery fish are abundant. Is there an age/size related link?
- What does this all mean, if anything?



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## Management Implications??

- Increased uncertainty in hatchery production & harvest management planning.
  - Reduced fecundity from earlier age & smaller size adults can lead to broodstock shortages in low run years.
  - High uncertainty in preseason run size estimation leads to conservative early season fishery management approach & much “hand wringing” until reliable in-season run size updates are available.
  - Can result in pulsed fisheries & differential harvest impacts on various stocks & age structure, depending on run timing during high & low intensity fisheries.
- Potential genetic & productivity effects on natural spawning populations & ESA recovery.
  - Supplementation programs may influence productivity by transferring earlier age at maturity & reduced spawner size effects to wild fish.



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## What Do the Data Say & What, if Anything, Should We Do about It?

- Is the age at maturity structure of hatchery fish & wild fish the same for donor & receiver populations? If not, why not?
- Are hatchery and/or natural populations experiencing directional age/size at maturity deviations from long term “base line” levels?
  - If no, at the very least there seems to be more variability in age & size structure in recent years. Why?
  - If yes, what are the implications for the future & can/should we try to ameliorate potential deleterious effects?



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## To Be Continued Day 3. Session 5.

- Most slides are from CRFPO's Little White Salmon, Spring Creek & Big White Salmon assessment projects, generously provided by Rod Engle.



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